

## **REMARKS**

Reconsideration of the above-identified application, in view of the above amendments and the following remarks, is respectfully requested.

### **I. Status of the Claims**

Claims 3-7 are presently pending.

Claims 3-7 stand rejected.

### **II. 35 U.S.C. § 103(a) Rejections**

Claims 3-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (AAPA) in view of U.S. Patent No. 5,658,082 Tsushima et al. (hereinafter "Tsushima"). The Applicants respectfully traverse the above rejection by stating that neither the AAPA nor Tsushima teach or disclose the present invention or suggest such a combination.

The Applicants respectfully state that all the claim limitations of the present invention regarding the carbonitriding treatment are not taught or suggested by Tsushima. Tsushima purports to teach a carbonitriding treatment to obtain case-hardened surface layers having a retained austenite in the range of 20-40%. However, all of the examples in Tsushima have an amount of retained austenite in the case-hardened layers never greater than 28%. See Tsushima Table 1 (describing examples with 28%, 27%, 25%, 22% and 10%). Thus, Tsushima does not teach carbonitriding

to achieve a retained austenite in the case-hardened layers of 30-80%.

Additionally, Tsushima expresses concern about high amounts of austenite. Specifically, Tsushima states that if the amount of austenite "is more than 40%, the case hardened layers have... lowered wear resistance [and t]his is undesirable." See column 4, lines 27-30.

In contrast, Applicant's claims call for 30% to 80% retained austenite in the surface layers. Thus, one of ordinary skill in the art at the time the invention was made would not use a retained austenite layer of 30% to 80%. Therefore, the Applicants respectfully state that all the claim limitations of present invention are not taught or suggested by AAPA or Tsushima and respectfully request withdrawal of the above rejection.

### **CONCLUSION**

In view of the foregoing, it is believed that claims 3-7 are in condition for allowance. It is therefore earnestly requested that the present application, as a whole, receive favorable consideration and that all of the claims be allowed in their present form.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



Louis J. DelGuidice  
Reg. No. 47,522  
Agent for Applicants

DARBY & DARBY, P.C.  
Post Office Box 5257  
New York, NY 10150-5257  
Phone (212) 527-7700